

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 01/28/2020		2. CONTRACT NO. (If any) 68HERD19D0001		6. SHIP TO: a. NAME OF CONSIGNEE Office of Research and Development	
3. ORDER NO. 68HERC20F0098		4. REQUISITION/REFERENCE NO. PR-ORD-20-00138			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency 109 T.W. Alexander Drive	
				c. CITY Research Triangle Park	e. ZIP CODE 27711
7. TO: (b) (4)				f. SHIP VIA	
a. NAME OF CONTRACTOR Westat, Inc.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: _____ Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 1600 RESEARCH BOULEVARD				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY ROCKVILLE		e. STATE MD	f. ZIP CODE 208503129		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE CAD	

11. BUSINESS CLASSIFICATION (Check appropriate box(es))				12. F.O.B. POINT	
<input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 03/31/2020	
a. INSPECTION Destination	b. ACCEPTANCE Destination			16. DISCOUNT TERMS	

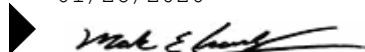
17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 049508120 TOCOR: Edward Hudgens Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$32,940.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL

22. UNITED STATES OF AMERICA BY (Signature)

01/28/2020



ELECTRONIC SIGNATURE

23. NAME (Typed)
Mark Cranley
TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES

PAGE NO

SCHEDULE - CONTINUATION

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 01/28/2020		CONTRACT NO. 68HERD19D0001		ORDER NO. 68HERC20F0098		
ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	<p>Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 01/28/2020 to 03/31/2020</p> <p>Task Order under Contract 68HERD19D0001 Research Support for Environmental Epidemiologic Studies - Peer Review Support</p> <p>Accounting Info: 19-20-C-26D5000-000FK6XR2-2532-26A5C-2 026D5E002-001 BFY: 19 EFY: 20 Fund: C Budget Org: 26D5000 Program (PRC): 000FK6XR2 Budget (BOC): 2532 Cost: 26A5C DCN - Line ID: 2026D5E002-001 Funding Flag: Complete Funded: \$31,935.00</p> <p>Accounting Info: 19-20-C-26D5000-000FK7XR3-2532-26A5C-2 026D5E002-002 BFY: 19 EFY: 20 Fund: C Budget Org: 26D5000 Program (PRC): 000FK7XR3 Budget (BOC): 2532 Cost: 26A5C DCN - Line ID: 2026D5E002-002 Funding Flag: Complete Funded: \$1,005.00</p>				32,940.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$32,940.00

**Peer Review Support
PERFORMANCE WORK STATEMENT
Task Order Contract 68HERD19D0001, Task Order 004**

Period of Performance: Date of Issuance to March 31, 2020

Task Order Contracting Officer's Representative (TOCOR):

Edward E. Hudgens
Phone: 919-966-0642
E-mail: hudgens.edward@epa.gov

Alternate TOCOR:

Danelle Lobdell
Phone: 919-843-4434
E-mail: Lobdell.danelle@epa.gov

Address for Courier (e.g., overnight delivery) for both:

U.S. EPA Human Studies Facility
104 Mason Farm Road
Chapel Hill, NC 27514

I. BACKGROUND

The Contractor shall conduct a Peer Review of an EPA product called the Environmental Quality Index (EQI). The EQI is currently publicly available for all counties in the United States for the time period 2000-2005 (see: <https://edg.epa.gov/data/Public/ORD/NHEERL/EQI>). The EQI has been updated for the time period 2006-2010 and is the subject of this peer review. The package of materials for the Reviewers contains the following: Data: EQI 2006-2010, EQI stratified by Rural Urban Continuum Codes (RUCC) 2006-2010 (same csv file as overall EQI), domain specific variables; metadata; Reports: EQI Technical Document, (static maps of EQI, domain specific indices and stratified by RUCC included in appendix in report). The EPA is unable to provide access to interactive map to those outside of EPA firewall until approval for public release. However, the interactive map will function the same as the interactive map for EQI 2000-2005, thus we provide this link as an example for reviewers (see: <https://epa.maps.arcgis.com/home/item.html?id=90ab3f8d668c4a4e88144d586ea34141>) . The goal of this Peer Review is to make available publicly all of the above files.

The Contractor completed a Peer Review Task for the 2000 – 2005 version of the EQI. The Contractor shall not duplicate work performed for this earlier Peer Review and shall use materials previously prepared as templates for future work. The Contractor shall take full advantage of the Quality Assurance Project Plans, procedures and other deliverables developed and submitted previously to the EPA.

II. SCOPE OF WORK

The Contractor shall conduct the following tasks as part of the Peer Review process. In general, the contractor shall select peer reviewers with appropriate expertise, determine absence of conflict of interest, establish schedules, and prepare and submit the expert panel summary of the answer to the Charge Questions. Peer Reviewers shall provide an independent review of the subject document by providing the answers to the Charge Questions provided by the EPA.

Reviewer key characteristics may include some or all of the following:

- Familiar with developing indices (preferably environmental in content)
- Familiar with principal components analysis
- Use indices in health outcome analysis
- Environmental public health researcher

Disciplines to explore for the key characteristics provided above include

- Environmental epidemiology
- Social epidemiology
- GIS or Geography
- Demography

Types of Organizations that may benefit from EQI, thus explore for reviewers with above characteristics

- State departments of public health
- State departments of environment
- Academic institutions
- Other Federal agencies
- Private research organizations, especially those focused on environmental research or population health

The output of this Task shall be an expert panel report of comments that conveys the independent scientific judgment of the Peer Reviewers about the subject document.

All work to be done under this Task Order shall be in compliance with the EPA Peer Review Handbook, 4th edition, available online at:

<https://www.epa.gov/osa/peer-review-handbook-4th-edition-2015>

The EPA will provide the “Charge to the Reviewers” document. Within five business days of award, the Contractor shall schedule a conference call with the WACOR to establish communications, go over the statement of work, and request any clarifications. The Contractor shall also arrange regular calls to provide verbal status updates to the WACOR until the project is complete. The EPA anticipates that this Peer Review process will not require face to face meetings. Each review shall be independent and all arrangements shall

be made by telephone, mail or e-mail.

The Contractor shall require each panel member to provide a signed declaration that the panel member is not arranging any new professional relationship with, or obtaining new financial holdings in, an entity which is not yet reported to the Contractor or could be viewed as related to the topic under discussion and its associated stakeholders.

The Contractor shall provide the TOCOR curriculum vita (CVs) and/or resumes for all potential panel members. The EPA may later make these documents public.

The Contractor shall provide to panel members a destruction agreement of materials form prior to sending out peer review materials. The Contractor shall also request verification of destruction of materials once peer reviewer has completed review and submitted comments.

Selection of Scientific and Technical Experts

The Contractor shall independently select and secure arrangements with no less than three (3) and no more than five (5) Reviewers who meet the requirements listed above. The goal of this Task is to obtain acceptable review comments from at least three Reviewers.

EPA will supply to the Contractor a list of at least 7 possible candidates the Contractor can consider for inclusion on the panel. The Contractor shall supply the TOCOR with a list of six (6) candidate Reviewers, who are available to participate in the review during proposed time-frames, within fifteen business days after the Task Order is issued. The Contractor shall provide the WACOR with the affiliation, qualifications, commitments, and Curriculum Vitae for each of the 6 candidate Reviewers. The Contractor shall ensure that the list of identified Reviewers conforms to the technical selection criteria stated above and determine any actual or potential conflict of interest where it exists. If EPA determines that a Reviewer is scientifically unqualified for the specific review, the contractor shall have five business days to submit a substitute for EPA review.

The final selection of the Reviewers is the responsibility of the Contractor and shall be completed within 10 days of EPA's determination that the candidate Reviewers or their substitutes are scientifically qualified for the specific review. There will be no Chair of the Panel, it will be a panel of equals. The Contractor shall contact the selected candidates, arrange for their participation and review of materials. A draft charge will be provided by the TOCOR to the Contractor. These Charge Questions must be included in the charge. The Contractor shall provide consulting fees to the selected Reviewers, as necessary.

Review Period and Comments

The Contractor shall manage and monitor the review process and deliverable due dates. The Reviewers will be allowed 3 weeks to complete their review. The Contractor shall

maintain liaison with the Reviewers throughout the process.

The Contractor shall receive and compile Reviewers' comments in a draft document. The Contractor shall review the comments to ensure that the Reviewers have fulfilled their responsibilities under their agreement with the Contractor. The Contractor shall not edit nor rearrange comments. The contractor may format the comments for consistency. The Contractor shall provide them in an electronic format (MS Word, or other format as approved by the TOCOR) with the Reviewers' cover/comment letters. The Contractor shall then produce a summary document of the comments. The Contractor shall provide the summary document in MS Word, or other format as approved by the TOCOR within ten business days of receipt of the Reviewer comments. To document the Peer Review process, the Contractor shall provide hard copies of the Reviewers' original comments and any working files maintained by the Contractor before the end of this Task Order's Period of Performance.

Conflict of Interest (COI) Analysis and Certification

Prior to the selection of the expert panelists, the Contractor shall perform an evaluation to determine the existence of an actual or potential COI for each proposed panel member. The EPA will provide a COI form so the Contractor can evaluate and determine the presence of an actual or potential COI. All information provided by the proposed panel member shall be verified by the Contractor.

The Contractor shall eliminate issues of actual or resolve potential conflicts of interest and panel composition before assembling the panel. As each situation must be evaluated on a case-by-case basis after consideration of specific circumstances, the contractor may consult with the TOCOR in carrying out these responsibilities. Consultation between the Contractor and the TOCOR must be documented and provided to the TOCOR to assure transparency in the process and full disclosure, if questions arise concerning COI.

Any particular COI, or appearance of loss of impartiality (see Chapter 5), must be disclosed by the contractor with a description of the actions the contractor has taken, or proposes to take, to avoid, mitigate, or neutralize the COI or appearance of loss of impartiality. Assurance of impartiality of each reviewer must be provided by the contractor to EPA. The signed certifications may be made public for concluding that there are no actual or unresolved potential conflicts of interest issues among the panel members, and to ensure that the panel is suitably balanced with respect to any actual or apparent bias.

Work Plan and Monthly Progress Reports

The Contractor shall prepare a work plan and cost estimate and submit it to the Contracting Officer (CO), Task Order Project Officer (TOPO), and TOCOR in accordance with contract requirements. The content of the Work Plan shall be in accordance with the terms of the contract and responsive to the requirements of this TO.

The Contractor shall also provide monthly progress reports with a description of work progress to date, any Quality Assurance issues, and the corrective actions they took to

resolve these issues.

Quality Assurance Project Plan (QAPP)

EPA policy requires that an approved Quality Assurance Project Plan (QAPP) be in place before any work begins that involves the collection, generation, evaluation, analysis or use of environmental data. Since this Peer Review project does not require any of these actions, no formal QAPP shall be required. The Contractor shall document any activities that perform to ensure the quality of the Peer Review process as part of their Monthly Reports and summarize these activities in their last Deliverable.

III. DELIVERABLES AND SCHEDULE

Special reporting requirements include documentation of all sources and contacts to fully reference the sources of all information. In addition to the deliverables specified for each task above, the Contractor shall prepare a final report summarizing all analyses, recommendations, reports, or comments provided during the Period of Performance of this Task Order. The final report shall provide documentation for any electronic data sets that may have been generated. Updated versions of any amended databases, data dictionaries, data sets, programs or documents, as well as all graphics and tables generated under this Task Order, are due at the completion of the TO and in a format that has been approved by the EPA. Copies of the monthly reports, conference call agendas and the agreed upon action items shall be included as documentation of the Task's and the overall TO course and progress. All programming documentation is due at the end of this TO. This includes copies of all statistical programs, statistical code and/or logs of output. The EPA may require the Contractor to provide the programming code used for specific data analysis or quality assurance tasks prior to the end of the TO or Period of Performance (POP) for EPA review and QA activities.

All deliverables shall be provided to the TOCOR electronically in accordance with the timeframes specified in Table 1. Electronic files shall be provided in PDF and in the original software. The contractor shall use Microsoft Office and Adobe Acrobat (online version) software for developing all electronic copies of deliverables. All documents to be posted on EPA's website shall be web-ready and 508 compliant. Files submitted on CD or DVD shall have an accompanying Table of Contents in a format that has been approved by the EPA.

Table 1. Schedule of Benchmarks and Deliverables

#	DELIVERABLE	DUE DATE
1	Workplan and Monthly Progress Reports	As specified in the contract
2	Quality Assurance Project Plan	Not Required
(a)	Summary of QA activities	Monthly and upon completion of the work under this TO

3	Peer Review Activities	
(a)	Qualifications and Curriculum Vitae for each of the candidate Reviewers	Fifteen business days after the Task Order is issued
(b)	signed declaration of NO Conflict of Interest from each panel member	Ten Business days after concurrence of panel members by EPA
(c)	Reviewers' comments, the reviewers' cover/comment letters and a summary document of the comments	Ten Business days after receipt of the reviewer comments
(d)	Hard copies of the Reviewers' original comments and any working files maintained by the Contractor	Upon completion of the work under this TO

IV. REPORTING

All documentation and reporting under this TO shall be in accordance with contract requirements.

V. TRAVEL

The EPA Anticipates that no travel will be required for this TO. If Travel is required, then it shall be allowable only in accordance with the limitations of FAR 31.205-43 and FAR 31.205-46 and must be approved by the EPA TOPO prior to travel taking place.

VI. CONTRACTOR IDENTIFICATION

Contractor personnel shall always identify themselves as Contractor employees by name and organization and physically display that information through an identification badge. Contractor personnel are prohibited from acting as the Agency's official representative.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

VII. NOTICE REGARDING GUIDANCE PROVIDED UNDER THIS TASK ORDER

The Contractor shall not engage in activities of an inherently governmental nature such as the following:

- (1) Formulation of Agency policy
- (2) Selection of Agency priorities
- (3) Development of Agency regulations

Should the Contractor receive any instruction from an EPA staff person that the Contractor ascertains to fall into any of these categories or goes beyond the scope of the contract or TO, the Contractor shall immediately contact the EPA TOCOR or the CO.

VIII. PERIOD OF PERFORMANCE

This TO will start on the date the Contracting Officer's signature and extend through March 31, 2020.

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 03/17/2020		2. CONTRACT NO. (If any) 68HERD19D0001		6. SHIP TO: a. NAME OF CONSIGNEE Office of Research and Development	
3. ORDER NO. 68HERC20F0116		4. REQUISITION/REFERENCE NO. PR-ORD-19-02537		b. STREET ADDRESS US Environmental Protection Agency 109 T.W. Alexander Drive	
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		c. CITY Research Triangle Park		d. STATE NC	e. ZIP CODE 27711
7. TO: (b) (4)		f. SHIP VIA			
a. NAME OF CONTRACTOR Westat, Inc.		8. TYPE OF ORDER <input type="checkbox"/> a. PURCHASE REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.			
b. COMPANY NAME		<input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.			
c. STREET ADDRESS 1600 RESEARCH BOULEVARD					
d. CITY ROCKVILLE	e. STATE MD	f. ZIP CODE 208503129			
9. ACCOUNTING AND APPROPRIATION DATA See Schedule		10. REQUISITIONING OFFICE CAD			
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					12. F.O.B. POINT
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date)	
				16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

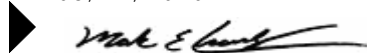
ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 049508120 TOCOR: Edward Hudgens Max Expire Date: 01/01/2021 Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$83,444.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$83,444.00
c. CITY Durham			d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL	

22. UNITED STATES OF

AMERICA BY (Signature)

03/17/2020



ELECTRONIC
SIGNATURE

23. NAME (Typed)

Mark Cranley

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES

PAGE NO

SCHEDULE - CONTINUATION

2

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DATE OF ORDER		CONTRACT NO.		ORDER NO.		
03/17/2020		68HERD19D0001		68HERC20F0116		
ITEM NO.	SUPPLIES/SERVICES	QUANTITY ORDERED	UNIT	UNIT PRICE	AMOUNT	QUANTITY ACCEPTED
(a)	(b)	(c)	(d)	(e)	(f)	(g)
0001	<p>Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 03/16/2020 to 01/01/2021</p> <p>Task Order #5 under Contract 68HERD19D0001 Research Support for Environmental Epidemiologic Studies- Automated Screening Software for Literature collected for curation of data into the ECOTOX Knowledgebase. Streamline the data curation process and focus on steps 3 and 4 in accordance with the Performance Work Statement.</p> <p>Accounting Info: 19-20-C-26XN000-000FK7XR4-2515-26A6A-1 926XNE087-001 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK7XR4 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-001 Funding Flag: Complete Funded: \$1,285.00 Accounting Info: 19-20-C-26XN000-000FK8-2515-26A6A-1926 XNE087-002 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK8 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-002 Funding Flag: Complete Funded: \$9,500.00 Accounting Info: 19-20-C-26XN000-000FK9XR6-2515-26A6A-1 926XNE087-003 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK9XR6 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-003 Funding Flag: Complete Funded: \$0.00 Accounting Info: 19-20-C-26XN000-000FK9XR5-2515-26A6A-1 Continued ...</p>				83,444.00	

ORDER FOR SUPPLIES OR SERVICES

PAGE NO

SCHEDULE - CONTINUATION

3

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER

CONTRACT NO.

ORDER NO.

03/17/2020

68HERD19D0001

68HERC20F0116

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	926XNE087-004 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK9XR5 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-004 Funding Flag: Complete Funded: \$58,940.00 Accounting Info: 19-20-C-26XN000-000FK9-2515-26A6A-1926 XNE087-005 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK9 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-005 Funding Flag: Complete Funded: \$1,000.00 Accounting Info: 19-20-C-26XN000-000FK7XR3-2515-26A6A-1 926XNE087-006 BFY: 19 EFY: 20 Fund: C Budget Org: 26XN000 Program (PRC): 000FK7XR3 Budget (BOC): 2515 Cost: 26A6A DCN - Line ID: 1926XNE087-006 Funding Flag: Complete Funded: \$12,719.00					

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$0.00

Performance Work Statement

Contract: 68HERD19D0001

Task Order: 005

Title: Automated Screening Software for Literature collected for curation of data into the ECOTOX Knowledgebase.

Period of Performance: Date of Issuance to January 1, 2021

Task Order Contracting Officer's Representative (TOCOR):

Edward E. Hudgens

Phone: 919-966-0642

E-mail: hudgens.edward@epa.gov

Mailing Address for TOCOR:

US EPA

109 T.W. Alexander Drive

Mail Drop 58C

Research Triangle Park, NC 27711

Address for Courier (e.g., overnight delivery) TOCOR:

U.S. EPA Human Studies Facility

104 Mason Farm Road

Chapel Hill, NC 27514

Alternate TOCOR:

Dale Hoff

Phone: 218-529-5011

E-mail: hoff.dale@epa.gov

Mailing and Courier Address for Alternate TOCOR:

USEPA

6201 Congdon Blvd

Duluth, MN 55804

A. Background and Purpose

The EPA/ORD Mid-Continent division is responsible for administering and curating ecological toxicity data in the ECOTOX Knowledgebase (<https://cfpub.epa.gov/ecotox/index.cfm>). The ECOTOXicology knowledgebase (ECOTOX) is a source for locating single chemical toxicity data for aquatic life, terrestrial plants and wildlife. ECOTOX is a unique system which includes toxicity data derived predominately from the peer-reviewed literature for aquatic life, terrestrial plants, and terrestrial wildlife. Curation of the ecotoxicity data occurs in 5 broad steps: 1.) development of search terms for each chemical; 2.) Conducting literature searches; 3.) **skimming and/or screening digital files of titles, abstracts, and keywords to discriminate potentially**

references; 4.) obtaining full text versions of potentially relevant publications and further screen those for inclusion/exclusion into the data curation process; 5.) coding/curating data from the included references into the database. This process is currently a mix of computational assisted software applications and manual curation.

The current work for this task order is focused on further streamlining our data curation process and is focused on steps 3 and 4 outlined above. In the past 18 months, our ECOTOX team at EPA have been collaborating with data scientists at NIEHS/NTP to develop analytical tools focused on the feasibility of building machine learning models to discriminate acceptable articles from non-acceptable articles and predicting reasons for exclusion. Work proposed here, began under that collaboration. EPA now seeks to pursue certain refinements to this work, while developing and testing additional capabilities to support ECOTOX needs going forward.

B. General Requirements

In providing support under the tasks described in Section C, the contractor also shall adhere to the following general requirements:

Databases and Computer programs

The contractor shall ensure that the updated databases, computer programs and the corresponding documentation developed under this contract are accessible to the EPA. The contractor shall use software packages that are relevant to particular statistical analysis, generally acceptable by experts as being reliable for the statistical analysis and allow for any necessary data modification. The program shall identify the origin of the input data sets (e.g., version X supplied by EPA on specific date).

Deliverables

The contractor shall provide documentation in computer files, and in hardcopy, upon specific request. When appropriate (e.g., in a report rather than data listing), the contractor shall clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources, and data that support the results and any recommendations. The contractor also shall document alternative methods, procedures, and assumptions that the contractor considered during the performance of this TO. Further, the documentation shall be labeled with the name of the contractor and the EPA contract number.

The contractor shall ensure that documentation is created using, or easily converted to, Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review. Contractor shall also provide all programming code used to develop specialized software.

Identification at Meetings

At meetings with EPA, the contractor shall state that he/she represents a contractor working for EPA, and wear clear identification identifying his contractor affiliation. Further, the contractor

shall prepare briefing materials that clearly indicate that they have been provided by a contractor working for EPA.

Work plan

The contractor shall prepare a work plan for this Task Order, due 10 days from receipt of this Task Order. To the greatest extent possible, the Contractor shall make use of any previously developed procedures, processes and materials that will be provided by the EPA.

Quality Assurance Project Plan (QAPP)

QA Project Plan Requirements

EPA policy requires that an *approved* Quality Assurance Project Plan (QAPP) be in place before any work begins that involves the collection, generation, evaluation, analysis or use of environmental data. The QAPP shall follow applicable project specific requirements outlined in EPA Requirements for QA Project Plans (QA/R-5, EPA 2001; https://www.epa.gov/sites/production/files/2016-06/documents/r5-final_0.pdf). The will provide a copy of the ECOTOX Knowledgebase Quality Assurance Project Plan. The contractor shall prepare a similar QAPP for the extramural research conducted under this TO that will be used as an Appendix for the ECOTOX QAPP provided.

If **major** changes, as determined by the TOCOR, are needed to an approved QAPP, the contractor shall submit a revised QAPP to EPA, and no data collection activity shall take place until the revised QAPP is approved. When preparing this revised version, the contractor shall ensure that it is written in an active voice and shall include a version history page that summarizes changes made. The contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the revised QAPP and provide the contractor with written approval or comments within 15 days of receiving the contractor's submission.

If **minor** changes, as determined by the TOCOR, are needed to an approved QAPP, the contractor shall submit a revised QAPP to the EPA TOCOR. Data collection activity shall continue regardless of the formal approval. This revised QAPP shall include a version history page that summarizes the changes made. The contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the revised QAPP and provide the contractor with written approval or comments within 15 days of receiving the contractor's submission.

Additional QA Documentation Required

In addition to the QAPP requirements described above, all major deliverables (e.g., Technical Support Documents, Study Reports, Study Plans, etc.) produced by the contractor under this work assignment must include a discussion of the QA/QC activities that were or will be performed to support the deliverable. For example, a Technical Support Document or Study Report must include a clear discussion of the quality management strategies that were employed to control and document the quality of data generated and used.

The contractor also shall provide EPA with monthly progress reports, due the 15th of every month, which includes QA activities performed during implementation of this Task Order. These monthly reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the QAPP, and corrective actions taken. If desired, the contractor may include this as a part of the contract-required monthly financial/technical progress report.

Travel

This Task Order MAY require travel to the Society of Environmental Toxicology and Chemistry (SETAC) North America 41st Annual Meeting in Fort Worth, Texas from November 15-19, 2020. This TO shall include the planning for any travel that is identified as necessary to provide training on the tool and/or describe the software application at scientific conferences to the broader ecotoxicological community.

Other Requirements

The contractor shall provide written notification to the Contracting Officer, Contract Level Contracting Officer's Representative, and Task Order Contracting Officer's Representative when 75 percent of the hours and/or funds have been spent on this Task Order.

C. Technical Support

Specific work under this task order includes the following:

- 1.) The contractor shall provide EPA with a technical briefing which reviews the status of the project at the time of conclusion of the afore-mentioned EPA/NTP collaboration.
- 2.) Assess the capability of machine learning models to support identification and categorization of non-applicable references for the ECOTOX database. These models shall examine methods of classification for exclusion reason, impact of increased data size, alternative architectures, and additional areas based on user feedback.
- 3.) Test the software application Swift Active Screener (a machine learning tool) for the ability to implement operational enhancements consistent with the models described above, tailored to best support the ECOTOX data curation pipeline. This may include detailed tests for how projects are initialized with default settings in Swift Active Screener and how the models built in previous tasks are utilized in the screening process, with necessary fine tuning performed during the tests.
- 4.) The contractor shall prepare training materials in the form of short videos and user guides for users of the software applications developed in task 3 of this TO.
- 5.) Assess the capability of existing or modified software to tag ECOTOX codes in full text documents. Using existing ECOTOX data of Effect groups and measurement codes, assess feasibility of automated data extraction.


- 6.) Support for Publishing results in appropriate scientific journals and/or conferences as determined by the TOCOR. All publications must be routed through EPA Technical Information Clearance procedures.

The Contractor shall maintain liaison with the TOCOR and/or their identified technical contact through conference calls, at an agreed upon interval, regarding the status of the activities within this Task. The Contractor shall prepare Agendas for the conference calls, distribute the Action Items and distribute Action Item updates during weeks without conference calls. Copies of all deliverables shall be sent to the TOCOR, the COR and the CO (as necessary).

D. Deliverables and Project Schedule

Task No.	Deliverable Description	Deliverable Date
0	Work Plan/QAPP	10 days from receipt of Task Order
0	Revised QAPP, if necessary	With Work Plan
0	Monthly Progress Reports with QA	With monthly progress reports due the 15 th of the month
1	Webinar briefing on the status of the project at the completion of the EPA/NTP collaboration	No more than 5 working days from Cost and Work Plan Approval
2	Assessment results, in report form and/or in ongoing communications as determined by the TOCOR that assesses the capability of machine learning models to support identification and categorization of non-applicable references for the ECOTOX database.	No more than 45 working days from Cost and Work Plan Approval
3	Assessment results, in report form and/or in ongoing communications as determined by the TOCOR that tests the software application Swift Active Screener for the ability to implement operational enhancements tailored to best support the ECOTOX data curation pipeline.	No more than 55 working days from Cost and Work Plan Approval
4	Training materials/users guide for software applications developed in task 3	No more than 65 working days from Cost and Work Plan Approval
5	Assessment results, in report form and/or in ongoing communications as determined by the TOCOR that assesses the capability of existing or modified software to tag ECOTOX codes in full text documents.	No more than 100 working days from Cost and Work Plan Approval

6	Draft manuscripts and/or presentation materials as determined by the TOCOR in support of publishing results in appropriate scientific journals and/or conferences.	TBD in consultation with TOCOR relative to the successful completion of tasks, but generally within 20 working days of delivering Task 3.
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AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00001		See Block 16C					
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x) 9A. AMENDMENT OF SOLICITATION NO.			
Westat, Inc. Attn: (b) (4) 1600 RESEARCH BOULEVARD ROCKVILLE MD 208503129							
				9B. DATED (SEE ITEM 11)			
				x 10A. MODIFICATION OF CONTRACT/ORDER NO.			
				68HERD19D0001			
				68HERC20F0116			
				10B. DATED (SEE ITEM 13)			
CODE 049508120				FACILITY CODE			
				03/17/2020			
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
X	Unilateral - Administrative Action to Update Invoice Approving Officials						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 049508120							
TOCOR: Edward Hudgens Max Expire Date: 01/01/2021 Invoice Approver: Dale Hoff Alt Invoice App: Edward Hudgens							
The purpose of this modification is to update the invoice approving officials. The invoice approving official was changed to Dale Hoff. The alternate invoice approving official was changed to Edward Hudgens.							
LIST OF CHANGES:							
Reason for Modification: Other Administrative Action							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Mark Cranley			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 09/24/2020	
(Signature of person authorized to sign)							

NAME OF OFFEROR OR CONTRACTOR
Westat, Inc.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Total Amount for this Modification: \$0.00 New Total Amount for this Version: \$0.00 New Total Amount for this Award: \$83,444.00 Invoice Approving Official changed to : Dale Hoff Alternate Invoice Approving Official changed to : Edward Hudgens Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 03/16/2020 to 01/01/2021				

NAME OF OFFEROR OR CONTRACTOR
Westat, Inc.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Section I: Clause titled "Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020)" is incorporated by reference.</p> <p>Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020)</p> <p>Payment:</p> <p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 03/16/2020 to 01/01/2021</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NUMBER		3. EFFECTIVE DATE 08/13/2020		4. REQUISITION/PURCHASE REQUISITION NUMBER		5. PROJECT NUMBER (If applicable)	
6. ISSUED BY Raoul D. Scott, Director OMS/ARM/OAS/Policy, Training and Oversight Division US Environmental Protection Agency, Mail Code 3802R 1200 Pennsylvania Avenue, NW Washington, DC 20004		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (Number, street, county, State and ZIP Code) To All EPA Contractors				<input checked="" type="checkbox"/> (X)		9A. AMENDMENT OF SOLICITATION NUMBER	
				<input type="checkbox"/>		9B. DATED (SEE ITEM 11)	
				<input checked="" type="checkbox"/> (X)		10A. MODIFICATION OF CONTRACT/ORDER NUMBER To all EPA Contracts and Orders	
				<input type="checkbox"/>		10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NUMBER AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NUMBER IN ITEM 10A.						
<input type="checkbox"/>							
<input checked="" type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
This contract/order is being modified in accordance with the applicability instructions in interim FAR Case 2019-009, and FAR 4.2105, requiring contracting officers to include FAR clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. See attached for the full text version of FAR 52.204-25. Contractor Acknowledgment of receipt required.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Raoul D. Scott, Director Policy, Training and Oversight Division			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				RAOUL SCOTT Digitally signed by RAOUL SCOTT Date: 2020.07.30 11:40:17 -04'00'			
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

Previous edition unusable

52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

As prescribed in 4.2105(b) and in the applicability instructions in interim FAR Case 2019-009, insert the following clause:

Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (Aug 2020)

(a) Definitions. As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) *Exceptions.* This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause

(i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 03/18/2020		2. CONTRACT NO. (If any) 68HERD19D0001		6. SHIP TO: a. NAME OF CONSIGNEE Office of Research and Development	
3. ORDER NO. 68HERC20F0121		4. REQUISITION/REFERENCE NO. PR-ORD-19-02190		b. STREET ADDRESS US Environmental Protection Agency 1200 Pennsylvania Avenue, NW MC: 8101R	
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		c. CITY Washington		d. STATE DC	e. ZIP CODE 20460
7. TO: (b) (4)		f. SHIP VIA			
a. NAME OF CONTRACTOR Westat, Inc.		8. TYPE OF ORDER			
b. COMPANY NAME		<input type="checkbox"/> a. PURCHASE REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.		<input checked="" type="checkbox"/> b. DELIVERY Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
c. STREET ADDRESS 1600 RESEARCH BOULEVARD					
d. CITY ROCKVILLE		e. STATE MD	f. ZIP CODE 208503129		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule		10. REQUISITIONING OFFICE CAD			
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB					12. F.O.B. POINT
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/30/2020	
				16. DISCOUNT TERMS	

17. SCHEDULE (See reverse for Rejections)

ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 049508120 TOCOR: Amina Wilkins Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$69,780.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$69,780.00
c. CITY Durham			d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL	

22. UNITED STATES OF

AMERICA BY (Signature)

03/18/2020

ELECTRONIC
SIGNATURE

23. NAME (Typed)

Mark Cranley

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER 03/18/2020	CONTRACT NO. 68HERD19D0001	ORDER NO. 68HERC20F0121
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ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Period of Performance: 03/18/2020 to 09/30/2020 Contract 68HERD19D0001 TO #6: Identifying Exposure and Fate References and Data for Improving Systematic Review Accounting Info: 20-21-C-26D1000-000F84-2532-26A5C-2026 D1C902-002 BFY: 20 EFY: 21 Fund: C Budget Org: 26D1000 Program (PRC): 000F84 Budget (BOC): 2532 Cost: 26A5C DCN - Line ID: 2026D1C902-002 Funding Flag: Complete Funded: \$33,780.00 Accounting Info: 19-20-C-26D1000-000F84-2532-26A5C-2026 D1C902-001 BFY: 19 EFY: 20 Fund: C Budget Org: 26D1000 Program (PRC): 000F84 Budget (BOC): 2532 Cost: 26A5C DCN - Line ID: 2026D1C902-001 Funding Flag: Complete Funded: \$36,000.00				69,780.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$69,780.00

Performance Work Statement

Contract: 68HERD19D0001

Task Order: 006

Title: Identifying Exposure and Fate References and Data for Improving Systematic Review

Period of Performance: Date of Issuance to September 30, 2020

Task Order Contracting Officer's Representative (TOCOR):

Amina Wilkins

Phone: 202-564-1224

E-mail: wilkins.amina@epa.gov

Alternate TOCOR:

Dahnish Shams

Phone: 202-564-2758

E-mail: shams.dahnish@epa.gov

Mailing Address for both:

US EPA, Center for Public Health and Environmental Assessment (CPHEA)

1200 Pennsylvania Ave. N.W.

Mail Drop 8623R

Washington, DC 20460

Mailing and Courier Address for Wilkins:

USEPA

Ronald Regan Building (7th Floor)

1300 Pennsylvania Ave., N.W.

Washington, D.C. 20004

Address for Courier (e.g., overnight delivery) for both:

USEPA

Ronald Regan Building (7th Floor)

1300 Pennsylvania Ave., N.W.

Washington, D.C. 20004

A. Background & Purpose

Background

NCEA regularly creates chemical-centric evidence maps as part of its literature assessment process. The basic process to identify and categorize literature is as follows:

Step 1. First, a variety of databases are searched to identify potentially relevant literature.

Standard databases and grey literature resources are consulted. For database searches, typically a chemical name search is conducted followed by use of SWIFT Review to prioritize studies for

screening. For example, application of the SWIFT Review tags for human, in vitro and animal (human health models) should identify studies important to understand human health. Searching of the grey literature is often manual (e.g., visual inspection of reference list presented in pdf format).

Step 2. Abstracts are screened for relevance. The resulting list of citations is screened for inclusion according to relevance. This step is usually performed in a reference screening tool such as SWIFT-Active Screener or DistillerSR.

For Included studies, additional information is gathered during screening, including:

- What kind of evidence is available (human, animal, in vitro)?
- Does the article contain pharmacokinetic model information (yes, unclear, no)?

Often, there are studies that aren't 100% relevant for one reason or another, that are tagged (categorized by checking the appropriate box(es) that describe the references content) as "Supplemental" to capture the fact that they may still contain useful information. For example, mechanistic evidence that otherwise meets the criteria is tagged as Supplemental. Supplemental articles can be further characterized using various sub-tags including: ADME, Susceptible health populations, Mixtures, Case studies, additional chemical specific things.

Step 3. Included articles are screened using the full-text article. Articles included, or provisionally included, at the abstract level are further screened at the full text level.

Step 4. "Snowballing" is performed to identify additional relevant articles. In this step, additional articles are identified by reviewing the citation lists referenced by the set of articles included at step 3. Any additional articles of interest are then screened according to Steps 2 and 3 to create the final set of relevant and supplemental literature.

Step 5. Included and supplemental articles that are tagged and Evidence Maps are created. This step is performed using a combination of manual and automated processes. In general, predefined terminology for exposure, fate, evidence stream, and other relevant concepts is used to categorize the included studies. The resulting tags are used to visualize the body of evidence and to identify gaps in the literature.

Step 6. Evidence maps are periodically updated. Evidence maps become outdated as soon as new literature is published. Ideally, evidence maps are updated on a regular basis by repeating steps 1-5 on newly published literature.

Purpose

The purpose of this task order is to develop and evaluate new methods for streamlining the literature curation and annotation of data for the purpose of chemical-centric evidence mapping at EPA. Evidence mapping is a method used to systematically search, collect, collate, and present research findings to identify available evidence, knowledge gaps and/or future research needs. EPA has previously developed ('historical') datasets and novel methods for identifying, tagging and prioritizing literature. A focus of this task seeks to apply currently available machine learning, natural language processing (NLP) and deep-learning techniques to develop accurate

search strings to augment the evidence mapping process used to development chemical assessments. Specifically, efforts of this task will improve the efficiency, and accuracy of identifying exposure and fate references that are available in literature databases (and potentially other sources such as “gray literature”) to enhance evidence mapping results.

Thus, the tasks included in this TO focus on 1) providing assistance to develop, evaluate and improve EPA provided text search strings that identify exposure and fate references and data, which may involve the use of keyword counting approaches and tools to help classify and characterize references, 2) inserting text search strings into SWIFT Review to display exposure and fate categories and their number of associated references, 3) evaluating the performance of automated, machine reference screening and tagging (categorizing) compared to screening results performed manually by human scientists, 4) create platforms to share and present best practices for evidence mapping focusing on exposure and fate related content, which may include workshops, webinars and publications.

End products produced will include:

- 1) Performance tested literature search strings that identify exposure and fate references; the search string will be provided in a text format and made available to the public free of charge.
- 2) Incorporation of search strings and keywords into SWIFT-Review; to display exposure and fate categories within the SWIFT- Review software tool; this is accomplished by simply inserting the developed text search string into the tool, no programming is involved.
- 3) Manuscript describing the results of machine versus human reference screening and tagging.
- 4) Workshops, webinars and, potentially, additional publications stemming from the listed tasks (e.g., a manuscript describing the best practices for evidence mapping pertaining to exposure and fate related content).

This work is relevant because it is currently difficult to identify exposure and fate references within literature databases that are relevant to chemical assessments. Investments have been made to develop MESH terms, controlled vocabularies and filters to better target and capture health outcome related studies, but little concerted effort has gone into developing the features to identify exposure and fate related content. So, this work seeks to work towards fulfilling that gap.

B. General Requirements

In providing support under the tasks described in Section C, the Contractor also shall adhere to the following general requirements:

Databases and Computer programs

The Contractor shall ensure that the updated databases, computer programs and the corresponding documentation developed under this contract are accessible to the EPA. The

Contractor shall use software packages that are relevant to statistical analysis, generally acceptable by experts as being reliable for the statistical analysis and allow for any necessary data modification. The program shall identify the origin of the input data sets (e.g., version X supplied by EPA on specific date).

Deliverables

The Contractor shall provide documentation in computer files, and in hardcopy, upon specific request. When appropriate (e.g., in a report rather than data listing), the Contractor shall clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources, and data that support the results and any recommendations. The Contractor also shall document alternative methods, procedures, and assumptions that the Contractor considered during the performance of this TO. Further, the documentation shall be labeled with the name of the Contractor and the EPA contract number.

The Contractor may be required to provide training on the tool and/or software application at scientific conferences to the broader ecotoxicological community. If needed, the Contractor will participate in sessions via webinar.

The Contractor shall ensure that documentation is created using, or easily converted to, Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

Monthly Progress Reports

The Contractor also shall provide EPA with monthly progress reports by the first of each month, which includes activities performed during implementation of this Task Order. These monthly reports shall identify QA activities performed to support implementation of this task order, problems encountered, and corrective actions taken. If desired, the Contractor may include this as a part of the contract-required monthly financial/technical progress report.

Identification at Meetings

At meetings with EPA, the Contractor shall state that he/she represents a contractor working for EPA, and wear clear identification identifying his contractor affiliation. Further, the Contractor shall prepare briefing materials that clearly indicate that they have been provided by a contractor working for EPA.

Work plan

The Contractor shall prepare a work plan and for this Task Order that must include a discussion of the QA/QC activities that were or will be performed to support the analyses that are the bases of the reported deliverables. For example, language in the work plan must include a clear discussion of the quality management strategies that were employed to control analyses the quality of data generated and used.

Quality Assurance Project Plan (QAPP)

QA/QC

No tasks in this order involve the generation, collection, evaluation, analysis, or use of environmental data. Only literature search strings and the analysis of resulting references will be collected and evaluated, not environmental data. Thus, this work does not meet the requirements for needing an approved QAPP.

Steps taken in this Task Order perform QA/QC measures as they assess the quality and accuracy of EPA devise literature search strings for identifying fate and exposure literature as well as evaluate approaches for developing literature search strings. It is difficult to develop comprehensive, accurate and targeted search strings for human environmental exposures and fate; thus, the EPA provided search strings, although well thought out, designed and implemented, may still require improvement. In addition to utilizing methods to identify improvements, those improvements will be implemented within this task.

Travel

The EPA anticipates that there will no travel required for this TO. If travel is required, it shall be allowable only in accordance with the limitations of FAR 31.205-43 and FAR 31.205-46 and must be approved by the EPA prior to travel taking place.

Other Requirements

The Contractor shall provide written notification to the Contracting Officer, Contract Level Contracting Officer's Representative, and Task Order Contracting Officer's Representative when 75 percent of the hours and/or funds have been spent on this Task Order.

C. Technical Support

Tasks presented below do not involve computer programming but take advantage of existing tools to collect, evaluate and analyze resulting literature search references; no environmental data are collected, evaluated or analyzed in any of the tasks within this Task Order.

Specific work under this task order include the following:

- 1) The Contractor shall schedule a kick-off meeting with TOCOR and other appropriate staff to overview tasks and timelines and address questions, etc.
- 2) The Contractor shall assist in developing, evaluating and improving EPA provided text search strings that identify exposure and fate references and data, which may involve the use of keyword counting approaches and tools to help classify and characterize references. The Contractor shall prepare a report detailing the search string evaluation and improvement process, and provide a listing of the final exposure and fate literature search strings.

- 3) The Contractor shall insert text search strings into SWIFT-Review to display exposure and fate categories, keyword/tags and their number of associated references. Incorporation of search strings and keywords into SWIFT-Review is accomplished by simply inserting the developed text search string into the tool. These same actions can be performed by the public using the SWIFT-Review tool and the search strings, as EPA shall make the search strings available open source and free of charge. The Contractor shall provide a brief memorandum (memo) discussing the steps for incorporating search strings and keywords into SWIFT-Review and navigating their use.
- 4) The Contractor shall evaluate the performance of automated, machine reference screening and tagging (categorizing) and compare with the screening results performed manually by human scientists. The Contractor shall submit written results of this evaluation to TOCOR.
- 5) As needed and determined by the EPA TOCOR, the Contractor shall provide support to assist EPA in drafting in preparing a manuscript based on the machine versus human screening results.
- 6) As needed and determined by the EPA TOCOR, the Contractor shall provide support to assist EPA in creating platforms to share and present the results of this effort, including but not limited to the best practices for evidence mapping focusing on exposure and fate related content, which shall include but not be limited to workshops, webinars, conferences and scientific journal publications, etc. as determined by the TOCOR. All publications must be routed through EPA Technical Information Clearance procedures.

The Contractor shall maintain liaison with the TOCOR and/or their identified technical contact through conference calls, at an agreed upon interval, regarding the status of the activities within this Task. The Contractor shall prepare Agendas for the conference calls, distribute the Action Items and distribute Action Item updates during weeks without conference calls. Copies of all deliverables shall be sent to the TOCOR, the COR and the CO (as necessary).

D. Deliverables and Project Schedule

Task No.	Deliverable Description	Deliverable Date
0	Work Plan; including a QA/QC discussion describing planned or enacted measures to ensure the quality of data and analyses performed in this Task Order.	10 days from receipt of Task Order
0	Monthly Progress Reports	With monthly progress reports
1	Schedule kick-off meeting	No more than 5 working days from Cost and Work Plan Approval

2	Report detailing the search string evaluation, improvement process, and the final search strings. The search strings shall be provided in text and electronic formats and EPA shall make available to the public free of charge.	No more than 45 working days from receipt of EPA search strings.
3	Memorandum discussing the steps for incorporating search strings and keywords into SWIFT-Review and navigating their use.	No more than 5 working days from receipt or development of search strings.
4	Report evaluating the performance of machine vs. human screening.	No more than 65 working days from Cost and Work Plan Approval.
5	Draft manuscript for publication: Machine vs. Human Screening.	TBD in consultation with EPA TOCOR relative to the successful completion of Task 4, and no more than 30 working days of EPA TOCOR request.
6	Draft presentation materials (e.g., workshops, webinars, additional 'Best Practices for Exposure & Fate Evidence Mapping publications, etc.) stemming from the listed tasks.	TBD in consultation with TOCOR relative to the successful completion of tasks, but generally within 10 working days for presentation materials; no more than 15 working days for webinars and no more than 30 working days for manuscripts.

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES	
				1 2	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-ORD-20-01926	
5. PROJECT NO. (If applicable)					
6. ISSUED BY CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		7. ADMINISTERED BY (If other than Item 6) CODE			
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) Westat, Inc. Attn: (b) (4) 1600 RESEARCH BOULEVARD ROCKVILLE MD 208503129		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. 68HERD19D0001 68HERC20F0121	
				10B. DATED (SEE ITEM 13) 03/18/2020	
CODE 049508120		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Bilateral - Admin Action - Change Period of Performance End Date and Update Invoice Approving Officials

E. IMPORTANT: Contractor ☐ is not ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)


DUNS Number: 049508120

TOCOR: Amina Wilkins InvoiceApprover: Amina Wilkins Alt Invoice App: Dahnish Shams

The purpose of this modification is to update the Period of Performance end date and to add the Alternate COR/Project Officer and Invoice Approving Officials. The Period of Performance end date was changed from 09/30/2020 - 06/30/2021. Dahnish Shams was added as the Alternate COR/Project Officer and the Alternate Invoice Approving Official. Amina Wilkins was added as the Invoice Approving Official.

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.


15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Mark Cranley	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 08/10/2020

Previous edition unusable

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE	OF
	68HERD19D0001/68HERC20F0121/P00001	2	2

NAME OF OFFEROR OR CONTRACTOR
Westat, Inc.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>LIST OF CHANGES:</p> <p>Reason for Modification: Other Administrative Action</p> <p>Period Of Performance End Date changed from 30-SEP-20 to 30-JUN-21</p> <p>Total Amount for this Modification: \$0.00</p> <p>New Total Amount for this Version: \$0.00</p> <p>New Total Amount for this Award: \$69,780.00</p> <p>Alternate COR/Project Officer changed to : Dahnish Shams</p> <p>Invoice Approving Official changed to : Amina Wilkins</p> <p>Alternate Invoice Approving Official changed to : Dahnish Shams</p> <p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p>www2.epa.gov/financial/contracts</p> <p>Durham NC 27711</p> <p>Period of Performance: 03/18/2020 to 06/30/2021</p>				
0002	<p>Zero dollar to extend the period of performance for 68HERD19D0001, Task-006 ;Identifying Exposure and Fate References and Data for Improving Systematic Review; from September 30, 2020 to June 30, 2021. Contract Specialist: Kaela Houser (Cincinnati contracting office)</p>				0.00

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
						1 2	
2. AMENDMENT/MODIFICATION NO.		3. EFFECTIVE DATE		4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO. (If applicable)	
P00002		See Block 16C					
6. ISSUED BY		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
CAD							
US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001							
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code)				(x)			
Westat, Inc. Attn: Susan Mountford 1600 RESEARCH BOULEVARD ROCKVILLE MD 208503129							
				9A. AMENDMENT OF SOLICITATION NO.			
				9B. DATED (SEE ITEM 11)			
				x			
				10A. MODIFICATION OF CONTRACT/ORDER NO.			
				68HERD19D0001			
				68HERC20F0121			
				10B. DATED (SEE ITEM 13)			
				03/18/2020			
CODE 049508120		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
See Schedule							
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.						
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
	D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
DUNS Number: 049508120							
TOCOR: Amina Wilkins Invoice Approver: Amina Wilkins Alt Invoice App: Dahnish Shams							
The purpose of this modification is to incorporate the attached EPA blanket administrative modification signed by Raoul Scott on July 30, 2020. All other terms and conditions remain unchanged.							
LIST OF CHANGES:							
Reason for Modification: Other Administrative Action							
Total Amount for this Modification: \$0.00							
Continued ...							
Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Mark Cranley			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				 (Signature of Contracting Officer)		ELECTRONIC SIGNATURE 10/13/2020	
(Signature of person authorized to sign)							

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED 68HERD19D0001/68HERC20F0121/P00002	PAGE	OF
		2	2

NAME OF OFFEROR OR CONTRACTOR
Westat, Inc.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>New Total Amount for this Version: \$0.00 New Total Amount for this Award: \$69,780.00</p> <p>Section I: Clause titled "Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020)" is incorporated by reference. Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020) Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 03/18/2020 to 06/30/2021</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NUMBER		3. EFFECTIVE DATE 08/13/2020		4. REQUISITION/PURCHASE REQUISITION NUMBER		5. PROJECT NUMBER (If applicable)	
6. ISSUED BY Raoul D. Scott, Director OMS/ARM/OAS/Policy, Training and Oversight Division US Environmental Protection Agency, Mail Code 3802R 1200 Pennsylvania Avenue, NW Washington, DC 20004		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (Number, street, county, State and ZIP Code) To All EPA Contractors				<input checked="" type="checkbox"/>		9A. AMENDMENT OF SOLICITATION NUMBER	
				<input type="checkbox"/>		9B. DATED (SEE ITEM 11)	
				<input checked="" type="checkbox"/>		10A. MODIFICATION OF CONTRACT/ORDER NUMBER To all EPA Contracts and Orders	
				<input type="checkbox"/>		10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NUMBER AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NUMBER IN ITEM 10A.						
<input type="checkbox"/>							
<input checked="" type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
This contract/order is being modified in accordance with the applicability instructions in interim FAR Case 2019-009, and FAR 4.2105, requiring contracting officers to include FAR clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. See attached for the full text version of FAR 52.204-25. Contractor Acknowledgment of receipt required.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Raoul D. Scott, Director Policy, Training and Oversight Division			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				RAOUL SCOTT Digitally signed by RAOUL SCOTT Date: 2020.07.30 11:40:17 -04'00'			
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

As prescribed in 4.2105(b) and in the applicability instructions in interim FAR Case 2019-009, insert the following clause:

Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (Aug 2020)

(a) Definitions. As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) *Exceptions.* This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause

(i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)

ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 06/11/2020		2. CONTRACT NO. (If any) 68HERD19D0001		6. SHIP TO: a. NAME OF CONSIGNEE ORD/OSIM-DC	
3. ORDER NO. 68HERC20F0212		4. REQUISITION/REFERENCE NO. PR-ORD-20-00158			
5. ISSUING OFFICE (Address correspondence to) CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001				b. STREET ADDRESS US Environmental Protection Agency ORD Office of Scientific Info Mgmt 1200 Pennsylvania Avenue, NW Mail Code 8102R	
				c. CITY Washington	e. ZIP CODE 20460
7. TO: (b) (4)				f. SHIP VIA	
a. NAME OF CONTRACTOR Westat, Inc.				8. TYPE OF ORDER	
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE <input checked="" type="checkbox"/> b. DELIVERY REFERENCE YOUR: Please furnish the following on the terms and conditions specified on both sides of this order and on the attached sheet, if any, including delivery as indicated.	
c. STREET ADDRESS 1600 RESEARCH BOULEVARD				Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.	
d. CITY ROCKVILLE		e. STATE MD	f. ZIP CODE 208503129		
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE	

11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB				12. F.O.B. POINT	
13. PLACE OF a. INSPECTION Destination		b. ACCEPTANCE Destination		14. GOVERNMENT B/L NO.	
				15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 09/30/2020	
16. DISCOUNT TERMS					

17. SCHEDULE (See reverse for Rejections)

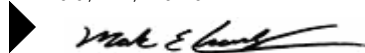
ITEM NO. (a)	SUPPLIES OR SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 049508120 TOCOR: Amina Wilkins Invoice Approver: Amina Wilkins Alt Invoice App: Michele Taylor Continued ...					

SEE BILLING INSTRUCTIONS ON REVERSE	18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.		17(h) TOTAL (Cont. pages)
	21. MAIL INVOICE TO:						
	a. NAME RTP Finance Center						\$72,080.00
	b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts						\$72,080.00
c. CITY Durham				d. STATE NC	e. ZIP CODE 27711		17(i) GRAND TOTAL

22. UNITED STATES OF

AMERICA BY (Signature)

06/11/2020



ELECTRONIC SIGNATURE

23. NAME (Typed)

Mark Cranley

TITLE: CONTRACTING/ORDERING OFFICER

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO
2

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER	CONTRACT NO.	ORDER NO.
06/11/2020	68HERD19D0001	68HERC20F0212

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001 Accounting Info: 19-20-C-26D1000-000F84-2532-26A5C-2026D1C905 -001 BFY: 19 EFY: 20 Fund: C Budget Org: 26D1000 Program (PRC): 000F84 Budget (BOC): 2532 Cost: 26A5C DCN - Line ID: 2026D1C905-001 Period of Performance: 06/11/2020 to 09/30/2020 Task Order #9 under Contract 68HERD19D0001: Data Extraction Algorithms for Automated Systematic Review				72,080.00	

TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))

\$72,080.00

Performance Work Statement

Contract: Westat 68HERD19D0001

Task Order:

Title: Data Extraction Algorithms for Automated Systematic Review

Period of Performance: Date of Issuance to September 30, 2020

Task Order Contracting Officer's Representative (TOCOR):

Amina Wilkins

Phone: 202-564-1224

E-mail: wilkins.amina@epa.gov

Alternate TOCOR:

Michele Taylor

Phone: 202-564-2298

E-mail: taylor.michelem@epa.gov

Mailing Address for both:

US EPA, National Center for Public Health and Environmental Assessment (CPHEA)

1200 Pennsylvania Ave. N.W.

Mail Drop 8623R

Washington, DC 20460

Address for Courier (e.g., overnight delivery) for both:

USEPA

Ronald Regan Building (7th Floor)

1300 Pennsylvania Ave., N.W.

Washington, D.C. 20004

A. Background & Purpose

The Environmental Protection Agency (EPA), Center for Public Health and Environmental Assessment (CPHEA) conducts systematic review of literature to develop chemical assessments to identify potential human health hazards. These systematic reviews collect toxicity or health effects information for different environmental chemicals including information on study design and results for both epidemiological and experimental animal or in vitro studies. The extraction of some data fields is straightforward (e.g., species or sex), while others are more complex, such as studies that have multiple experiments, exposures, doses and endpoints to evaluate.

EPA is interested in adopting automated (or semi-automated) processes for data extraction. Even partial automation of data extraction will help improve the efficiency of conducting a systematic review by reducing the time and labor costs needed to complete data extractions. The activities outlined in this work statement are informed by experience from the Systematic Review Information Extraction (SRIE) Challenge

(<https://tac.nist.gov/2018/SRIE/index.html>) that was jointly held by EPA and the National Toxicity Program (NTP) in 2018. This task will revise and improve upon existing algorithms as well as develop algorithms for new extraction content. Measures to assess the quality of the automatically extracted data is also included.

Specific work under this Task Order include the following:

- 0) Monthly Progress Reports: Monthly progress reports and monthly financial management reports are required and are due by the 1st of each month. Reports submitted under this contract shall reference the contract number, the Task Order number and the Environmental Protection Agency (EPA).
- 1) Kick-off Meeting: The Contractor shall contact the EPA TOCOR within 2 days of TO start date to schedule a kick-off meeting to occur within 5 working days from TO start date and provide a summary of key discussion within 2 working days following the meeting (within 7 working days from TO start date).
- 2) Technical and Cost Proposal: The Contractor shall prepare a technical and price proposal for this Task Order that must include a discussion of the QA/QC activities that were or will be performed to support the analyses that are the bases of the reported deliverables. For example, language in the proposal must include a clear discussion of the quality management strategies that were employed to control analyses the quality of data generated and used.
- 3) Quality Assurance Project Plan (QAPP): The Contractor shall develop a QAPP for this PWS that discusses the QA/QC pertaining to the development and testing of the algorithms. The QAPP shall be submitted for approval within 15 working days of the Task Order start date. The Contractor shall not perform any work under this PWS until the QAPP is reviewed and approved by the TOCOR and Quality Assurance Manager
- 4) Revise/Create Extraction Algorithms: The Contractor shall refine existing or create new machine-learning algorithms as necessary to perform data extraction from studies in full-text format (i.e., pdf format); including algorithms for properly linking data extracted from multi-arm study designs. Performance tested, machine-learning algorithms that identify and retrieve/highlight text corresponding to the extraction data field of interest, will be provided in an electronic text format (i.e., MSWord or other compatible format) and EPA shall make them available to the public free of charge. The Contractor shall include the algorithms in a report that details their development.
- 5) Format Annotated/Extracted Datasets: The Contractor shall consistently format existing annotated files and extraction datasets (provided by EPA). These datasets serve to evaluate the performance of algorithms. The Contractor shall supply consistently formatted datasets using Excel (or other compatible) software.
- 6) Evaluate Algorithm Performance: The Contractor shall test the performance of revised or new algorithms using appropriately formatted datasets. The Contractor shall prepare a report evaluating algorithm performance in a MSWord file or other compatible format.

- 7) Algorithms Dissemination & Report: EPA shall make information from the Contractor report available to the public free of charge. The Contractor shall prepare a report that includes, but is not limited to, the algorithms, salient information about algorithm development and performance, QA/QC measures and information about the datasets used to test the algorithms. The report shall be in a MSWord file or other compatible format. Algorithms shall be made available to the public in a format that promotes interoperability between systematic review software tools.

End products produced will include:

- 1) A report listing and discussing the algorithms, their development and other salient information (i.e., what they do, quality control measures, etc.).
- 2) Dissemination of algorithms to the public.

B. General Requirements

In providing support under the tasks described in Section C, the Contractor also shall adhere to the following general requirements:

Databases and Computer programs

The Contractor shall ensure that the updated databases, computer programs and the corresponding documentation developed under this contract are accessible to the EPA. The Contractor shall use software packages that are relevant to statistical analysis, generally acceptable by experts as being reliable for the statistical analysis and allow for any necessary data modification. The program shall identify the origin of the input data sets (e.g., version X supplied by EPA on specific date).

Deliverables

The Contractor shall provide documentation in computer files, and in hardcopy, upon specific request. When appropriate (e.g., in a report rather than data listing), the Contractor shall clearly specify the methods, procedures, considerations, assumptions, relevant citations, data sources, and data that support the results and any recommendations. The Contractor also shall document alternative methods, procedures, and assumptions that the Contractor considered during the performance of this TO. Further, the documentation shall be labeled with the name of the Contractor and the EPA contract number.

The Contractor shall ensure that documentation is created using, or easily converted to, Agency standard software formats (e.g., Microsoft Office) to facilitate EPA use and review.

Monthly Progress Reports

The Contractor also shall provide EPA with monthly progress reports which includes activities performed during implementation of this Task Order. These monthly reports shall identify QA activities performed to support implementation of this Task Order, problems encountered, and

corrective actions taken. If desired, the Contractor may include this as a part of the contract-required monthly financial/technical progress report.

Identification at Meetings

At meetings with EPA, the Contractor shall state that he/she represents a contractor working for EPA, and wear clear identification identifying his contractor affiliation. Further, the Contractor shall prepare briefing materials that clearly indicate that they have been provided by a contractor working for EPA.

Work Plan

The Contractor shall prepare a technical and price proposal for this Task Order that must include a discussion of the QA/QC activities that were or will be performed to support the analyses that are the bases of the reported deliverables. For example, language in the proposal must include a clear discussion of the quality management strategies that were employed to control analyses the quality of data generated and used.

Quality Assurance Project Plan (QAPP)

QA/QC

The Contractor shall develop a QAPP for this PWS. The QAPP shall be submitted for approval. The Contractor shall not perform any work under this PWS until the QAPP is reviewed and approved by the TOCOR and Quality Assurance Manager.

The contractor must document in the QAPP details regarding application testing procedures and test results, document and validate source code as well as code version, document testing acceptance criteria, and verify the results are correct. (See these documents: "EPA Manual C/0 2105-P-01-0: EPA Quality Manual for Environmental Programs" and "EPA Requirements for Quality Assurance Project Plans (QA/R-5)"). The QAPP should contain all the sections outlined in the EPA Requirements (QA/R-5) document. Section B headings can be edited to document software-specific quality assurance (see Attachment 1 at end of PWS).

Travel

The EPA anticipates that there will be no travel required for this TO. If travel is required, it shall be allowable only in accordance with the limitations of FAR 31.205-43 and FAR 31.205-46 and must be approved by the EPA TOCOR prior to travel taking place.

Other Requirements

The Contractor shall provide written notification to the Contracting Officer, Contract Level Contracting Officer's Representative, and Task Order Contracting Officer's Representative when 75 percent of the hours and/or funds have been spent on this Task Order.

C. Technical Support

Tasks presented below do not involve computer programming but take advantage of existing tools to collect, evaluate and analyze resulting literature search references and key words; no environmental data are collected, evaluated or analyzed in any of the tasks within this Task Order.

The Contractor shall maintain liaison with the TOCOR and/or their identified technical contact through conference calls, at an agreed upon interval, regarding the status of the activities within this Task. The Contractor shall prepare Agendas for the conference calls, distribute the Action Items and distribute Action Item updates during weeks without conference calls. Copies of all deliverables shall be sent to the TOCOR, the COR and the CO (as necessary).

D. Deliverables and Project Schedule

Task No.	Deliverable Description	Deliverable Date
0	Monthly Progress and Financial Reports	Monthly
1	Kick-off meeting: <ul style="list-style-type: none">• Schedule (within 2 working days of TO start date),• Attend (within 5 working days of TO start date) and• Provide summary (within 7 working days of TO start date)	No more than 7 working days from Task Order start date
2	Work Plan	15 working days from Task Order start date
3	QAPP	15 working days from Task Order start date
4	Create algorithms	Within 100 working days from Task Order start date
5	Formatted datasets	Within 15 working days of receipt of datasets
3-7	Contractor report	No more than 120 working days from Task Order start date

Attachment 1

[TYPE THE COMPANY NAME]

[Type the document title]

[Type the document subtitle]

Wilkins, Amina

[Choose the date]

(Include preparer's name and address, document number, and version control [revision 0=initial submission] here on the cover page. Fill in each section below – use associated checklists to help develop text to include in each section.)

ORD QA Category [Discuss with EPA QA manager and enter A or B here]

ORD QAPP ID Number: [obtain # from EPA Quality Manager and enter here]

SECTION A: PROJECT MANAGEMENT

A1: Title and Approval Page

[Include signatures of WAM/Project Managers/QA Officers or Managers]

A2: Table of Contents

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APPENDICES

A3: Distribution List

A4: Project/Task/Schedule/Organization chart

Reporting lines: _____

Communication lines:

A5: Project Background Overview

A6: Project/Task description

A7: Quality Objectives and Criteria

A8: Special Training/Certification

A9: Documentation and Records

SECTION B: MODEL DEVELOPMENT

B1: Model Design

B2: Methods

B3: Software - Coding - Documentation

B4: Analysis

B5: Quality Control

B6: Testing

B7: Calibration

B8: Acceptance

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SECTION C: ASSESSMENT AND OVERSIGHT

C1: Assessments and Response Actions

C2: Reports to Management

SECTION D: DATA VALIDATION AND USABILITY

D1: Model Review, Verification, and Validation

D2: Verification and Validation Methods

D3: Reconciliation with User Requirements

NAME OF OFFEROR OR CONTRACTOR
Westat, Inc.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>New Total Amount for this Award: \$72,080.00</p> <p>Section I: Clause titled "Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020)" is incorporated by reference.</p> <p>Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. (AUG 2020)</p> <p>Payment:</p> <p> RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 </p> <p>Period of Performance: 06/11/2020 to 09/30/2020</p>				

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT				1. CONTRACT ID CODE		PAGE OF PAGES	
2. AMENDMENT/MODIFICATION NUMBER		3. EFFECTIVE DATE 08/13/2020		4. REQUISITION/PURCHASE REQUISITION NUMBER		5. PROJECT NUMBER (If applicable)	
6. ISSUED BY Raoul D. Scott, Director OMS/ARM/OAS/Policy, Training and Oversight Division US Environmental Protection Agency, Mail Code 3802R 1200 Pennsylvania Avenue, NW Washington, DC 20004		CODE		7. ADMINISTERED BY (If other than Item 6)		CODE	
8. NAME AND ADDRESS OF CONTRACTOR (Number, street, county, State and ZIP Code) To All EPA Contractors				<input checked="" type="checkbox"/> (X)		9A. AMENDMENT OF SOLICITATION NUMBER	
				<input type="checkbox"/>		9B. DATED (SEE ITEM 11)	
				<input checked="" type="checkbox"/> (X)		10A. MODIFICATION OF CONTRACT/ORDER NUMBER To all EPA Contracts and Orders	
				<input type="checkbox"/>		10B. DATED (SEE ITEM 13)	
CODE		FACILITY CODE					
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS							
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.							
12. ACCOUNTING AND APPROPRIATION DATA (If required)							
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NUMBER AS DESCRIBED IN ITEM 14.							
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NUMBER IN ITEM 10A.						
<input type="checkbox"/>							
<input checked="" type="checkbox"/>	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).						
<input type="checkbox"/>	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:						
<input type="checkbox"/>	D. OTHER (Specify type of modification and authority)						
E. IMPORTANT: Contractor <input checked="" type="checkbox"/> is not <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.							
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)							
This contract/order is being modified in accordance with the applicability instructions in interim FAR Case 2019-009, and FAR 4.2105, requiring contracting officers to include FAR clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment. See attached for the full text version of FAR 52.204-25. Contractor Acknowledgment of receipt required.							
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.							
15A. NAME AND TITLE OF SIGNER (Type or print)				16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)			
				Raoul D. Scott, Director Policy, Training and Oversight Division			
15B. CONTRACTOR/OFFEROR		15C. DATE SIGNED		16B. UNITED STATES OF AMERICA		16C. DATE SIGNED	
				RAOUL SCOTT Digitally signed by RAOUL SCOTT Date: 2020.07.30 11:40:17 -04'00'			
(Signature of person authorized to sign)				(Signature of Contracting Officer)			

Previous edition unusable

52.204-25 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

As prescribed in 4.2105(b) and in the applicability instructions in interim FAR Case 2019-009, insert the following clause:

Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (Aug 2020)

(a) Definitions. As used in this clause—

Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet).

Covered foreign country means The People's Republic of China.

Covered telecommunications equipment or services means—

(1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities);

(2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities);

(3) Telecommunications or video surveillance services provided by such entities or using such equipment; or

(4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.

Critical technology means—

(1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations;

(2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled-

(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or

(ii) For reasons relating to regional stability or surreptitious listening;

(3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities);

(4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material);

(5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or

(6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817).

Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources.

Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or third-party audit.

Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high.

Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service.

(b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104.

(2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract.

(c) *Exceptions.* This clause does not prohibit contractors from providing—

(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(d) Reporting requirement.

(1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at <https://dibnet.dod.mil>. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at <https://dibnet.dod.mil>.

(2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause

(i) Within one business day from the date of such identification or notification: the contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended.

(ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services.

(e) *Subcontracts*. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

(End of clause)